

```

#include <stdio.h>

void insertionSort(int arr[], int n) {
    for (int i = 1; i < n; i++) {
        int key = arr[i];
        int j = i - 1;

        // Move elements that are greater than key one position
        ahead
        while (j >= 0 && arr[j] > key) {
            arr[j + 1] = arr[j];
            j--;
        }

        arr[j + 1] = key;
    }
}

void printArray(int arr[], int n) {
    for (int i = 0; i < n; i++)
        printf("%d ", arr[i]);
    printf("\n");
}

int main() {
    int n;

    printf("Enter number of elements: ");

```

```
scanf("%d", &n);
```

```
int arr[n];
```

```
printf("Enter %d elements:\n", n);
```

```
for (int i = 0; i < n; i++)
```

```
    scanf("%d", &arr[i]);
```

```
printf("\nArray before sorting:\n");
```

```
printArray(arr, n);
```

```
insertionSort(arr, n);
```

```
printf("\nArray after Insertion Sort:\n");
```

```
printArray(arr, n);
```

```
return 0;
```

```
}
```

Enter number of elements: 4

Enter 4 elements:

2 5 4 8

Array before sorting:

2 5 4 8

Array after Insertion Sort:

2 4 5 8

=== Code Execution Successful ===